

## **REMARKS**

Claims 1-38 are now pending in the application. Claim 1-7, 11-20, 25, and 26 have been amended herein. Claims 20, 21, and 27-38 have been cancelled and new Claims 39-52 have been added herein. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## **REJECTION UNDER 35 U.S.C. § 102**

Claims 1-5, 9, 11, 13-16, 25, and 26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Cardinal (U.S. Patent No. 4,588,577). This rejection is respectfully traversed.

At the outset, Applicant respectfully submits that the originally filed claims are patentably distinct over the reference. However, in an effort to expedite prosecution, Applicant has amended Claim 1 to state “a container housing a solution consisting essentially of water and a metal catalyst.” In addition, Application has amended Claim 1 to state “a generator that ultrasonically radiates said solution operably ablating a surface of said metal catalyst, removing oxide from said surface and producing hydrogen gas.” Support for this amendment can be found in Figure 2 and paragraphs [0027]-[0032]. In contrast, Cardinal fails to teach or suggest the claimed combination of elements, especially as amended. Cardinal does not teach or suggest a solution consisting essentially of water and a metal catalyst nor does it teach ultrasonically irradiating said solution operably ablating a surface of said catalyst, removing oxide from said surface, and producing hydrogen gas. For example, Cardinal teaches generating hydrogen gas

from water containing a chelating agent and treatment with a metallic catalyst. According to the teachings of Cardinal, the chelating agent reversibly binds to a metal ion, the metal catalyst, forming a metal complex which is in contrast to Applicant's teachings of ablating of a metal catalyst to remove any metal complex, such as an oxide, that is on the metal catalyst. Accordingly, reconsideration and withdrawal of the present rejection are respectfully requested.

In addition, Applicant has amended Claim 13 to state "a fuel cell that consumes said hydrogen gas to produce power output." Support for this amendment can be found especially in Figure 1 and the accompanying text. In contrast, Cardinal does not teach or suggest the claimed combination of elements, especially as amended. For example, Cardinal suggests the use of generated hydrogen gas can be directed to an internal combustion engine or to a burner but does not teach or suggest the generated hydrogen being consumed by a fuel cell to produce a power output. Accordingly, reconsideration and withdrawal of the present rejection are respectfully requested.

Claims 1-6, 8-9, 11-12, 13-17, 19-20, 22-23, and 25-26 stand rejected under 35 U.S.C. § 102(b) as being anticipated by JP 2002-234702 machine translated. This rejection is respectfully traversed.

At the outset, Applicant respectfully submits that the originally filed claims are patentably distinct over the references. However, in an effort to expedite prosecution, Applicant has amended Claim 1 as discussed above. In contrast, JP 2002-234702 does not teach or suggest the claimed combination of elements, especially as amended. For example, JP 2002-234702 teaches a hydrogen generator containing a complex metal hydride in water that is irradiated with a supersonic wave to generate

hydrogen. JP 2002-234702 teaches that hydrogen gas is generated from the complex metal hydride and not from the water as discussed in paragraphs 32-38 and 10-24. JP 2002-234702 specifically teaches that subjecting metal hydride and water to ultrasonic radiation, a hydrolysis reaction takes place thereby generating hydrogen and for such reaction a metal hydride is required. Furthermore, JP 2002-234702 teaches that a catalyst is not needed to generate hydrogen from a metal hydride, discussed in paragraphs 10, 17, 25, and 31-38. Accordingly, reconsideration and withdrawal of the present rejection are respectfully requested.

In addition, Applicant has amended Claim 13 to state “a supply unit with an inlet and fluid communication with said container, and an outlet in fluid communication with said fuel cell, and a compressor that extracts said hydrogen gas from said container.” Support for this amendment can be found in Figure 1 and the accompanying text. In contrast, JP 2002-234702 does not teach or suggest the claimed combination of elements, especially as amended. For example, JP 2002-234702 teaches a hydrogen exhaust pipe for supplying hydrogen to a fuel cell. Furthermore, JP 2002-234702 does not teach or suggest a supply unit with an inlet in fluid communication with a container, an outlet in communication with a fuel cell, and a compressor that extracts hydrogen gas from said container. Accordingly, reconsideration and withdrawal of the present rejection are respectfully requested.

#### **REJECTION UNDER 35 U.S.C. § 103**

Claims 7, 10, 18, and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over JP 2002-234702. This rejection is respectfully traversed.

At the outset, Applicant respectfully submits that the originally filed claims are patentably distinct over the reference. However, in an effort to expedite prosecution, Applicant has amended the parent of Claims 7 and 10, namely Claim 1, and the parent of Claims 18 and 21, namely Claim 13. All of the amendments to the parents are discussed above.

Applicant contends the Examiner has failed to state a *prima facie* case of obviousness. All claim limitations must be taught or suggested to establish *prima facie* case of obviousness for the claimed invention. More specifically, the references must be considered as a whole and must suggest the desirability and thus obviousness of making the combination. Graham v John Deere Corp, 148 USPQ 459 (1966); MPEP § 2141. The statement that modifications of the prior art in the claimed invention would have been "well within the ordinary skill of the art at the time the claimed invention was made" because the references relied upon teach all the aspects of the claimed invention were individually known in the art is not sufficient to establish a *prima facie* case of obviousness without some objective reason to combine the teachings of the references. Ex-Parte Levingood, 28 USPQ 1300 (1993). The Office Action gives no teaching, suggestion, or motivation for any combination of JP 2002-234702.

The Office Action merely stated that the combinations were obvious to one skilled in the art, since at this time the Office Action has failed to provide any objective evidence found in the reference to support the combination of this reference. The Examiner must present a convincing line of reasoning as to why one skilled in the art would have combined this reference. A statement that a modification is well within one skilled in the art is not sufficient by itself to establish a *prima facie* obviousness.

Accordingly, reconsideration and withdrawal of the present rejection are respectfully requested.

All claim amendments not specifically discussed herein have been made to either broaden the claim or to improve grammar and not to overcome any cited references and, therefore, these claim amendments are entitled to their full range of equivalence.

### **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant, therefore, respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,



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